Application No. 10/518,624 Docket No.: 03108/0202225-US0

Amendment dated March 8, 2007 Reply to Office Action of November 9, 2006

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A compound of the general formula (I),

General formula (I)

wherein

Ro is hydrogen or a (C1-C2)alkyl:

R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉, R₁₀, R₁₁ and R₁₂ are the same or different and are each independently selected from the group consisting of hydrogen, a halogen, a perhaloalkyl group, an amino group, a substituted or unsubstituted linear or branched chain (C₁-C₁₂)alkyl, (C₃-C₇)cycloalkyl, (C₁-C₁₂)alkoxy, cyclo(C₃-C₇)alkoxy, aryl, aryloxy, aralkyl, aralkoxy, heteroayelyl, heteroaralkyl, heteroaralkyl, heteroaralkyl, heteroaralkoxy, heterocyclylalkyloxy, acyl, acyloxy, acylamino, monoalkylamino, dialkylamino, arylamino, diarylamino, aralkylamino, hydroxyalkyl, aminoalkyl, monoalkylaminoalkyl, dialkylaminoalkyl, alkoxyalkyl, alkylthio, aminocarbonylamino, dialkylaminocarbonylamino. carboxylic acid and derivatives thereof:

 R_{13} and R_{14} are the same or different and are each independently selected from the group consisting of hydrogen, a substituted or unsubstituted linear or branched chain (C_1-C_4) alkyl, (C_3-C_7) cycloalkyl, (C_3-C_7) cycloalkyl, bicycloalkenyl, bicycloalkenyl, aryl, and aralkyl, or R_{13} and R_{14} taken together

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- with the nitrogen atom to which they are attached, form a substituted or unsubstituted 3, 4, 5, 6 or 7-membered heterocyclic ring, wherein said ring contains from 0 to 3 double bonds and from 0 to 2 heteroatoms: and
- n is an integer ranging from 1 to 6, wherein if n is an integer ranging from 3 to 6, the carbon chain is linear or branched.
- or a derivative, analog, tautomeric form, stereoisomer, polymorph, <u>or</u> pharmaceutically acceptable salt or solvate thereof.
- (Currently amended) The compound according to claim 1, which is selected from the group consisting of:
- 11-(2-N,N-Dimethylaminoethyl)-6H-isoindolo[2,1-a]indole;
- 2-Chloro-11-(2-N,N-dimethylaminoethyl)-6H-isoindolo[2,1-a]indole;
- 2-Chloro-11-(2-N.N-dimethylaminoethyl)-6H-isoindolo[2,1-a]indole hydrochloride salt;
- 2-Chloro-11-(2-N,N-dimethylaminoethyl)-6H-isoindolo[2-,1-a]indole maleic acid salt;
- 2-Chloro-11-(2-N,N-dimethylaminoethyl)-6H-isoindolo[2,1-a]indole D,L-malic acid salt;
- 2-Chloro-11-(2-N,N-dimethylamino- ethyl)-6H-isoindolo[2,1-a]indole oxalate salt;
- 2-Chloro-11-(2-N,N-dimethyl- aminoethyl)-6H-isoindolo[2,1-a]indole citrate salt;
- 2-Fluoro-11-(2-N.N-dimethylaminoethyl)-6H-isoindolo[2,1-alindole:
- 2-Chloro-11-(2-N,N-diethylaminoethyl)-6H-isoindolo[2,1-alindole citrate salt;
- 2-Fluoro-11-(2-N,N-diethylaminoethyl)-6H-isoindolo[2,1-alindole;
- 2-Chloro-11-(2-N-cyclopropyl-N-methylaminoethyl)-6H-isoindolo[2,1-alindole citrate salt;
- 2-Fluoro-11-(2-N-cyclopropyl-N-methylaminoethyl)-6H-isoindolo[2,1-alindole;
- 11-(2-N,N-Dimethylaminoethyl)-2-methyl-6H-isoindolo[2,1-a]indole;
- 11-(2-N,N-Dimethylaminoethyl)-2-methoxy-6H-isoindolo[2,1-a]indole;
- 2-Bromo-11-(2-N,N-diethylaminoethyl)-6H-isoindolo[2,1-a]indole;
- 2-Bromo-11-(2-N-methyl-N-cyclopropylaminoethyl)-6H-isoindolo[2,1-a]indole;
- 4-Chloro-11-(2-N,N-dimethylaminoethyl)-6H-isoindolo[2,1-a]indole;
- 3,4-Dichloro-11-(2-N,N-dimethylaminoethyl)-6H-isoindolo[2,1-a]indole;
- I-Chloro-11-(2-N,N-dimethylaminoethyl)-4methyl-6H-isoindolo[2,1-a]indole;

- 3-Chloro-11-(2-N,N-dimethylaminoethyl)-4methyl-6H-isoindolo[2,1-alindole;
- 3-Chloro-11-[(2-N-methylamino)ethyl]-4-methyl-6H-isoindolo[2,1-a]indole;
- 3-Chloro-11-[(2-N-methyl-N-acetylamino)ethyl]-4methyl-6H-isoindolo[2,1-a]- indole;

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- 3-Chloro-11-[(2-N-methylamino)ethyl]-2-methoxy-6H-isoindolo[2,1-a]- indole;
- 3-Chloro-11-[(2-N-methylamino)ethyl]-2-sulfoamido-6H-isoindolo[2,1-a]indole;
- 3-Iodo-11-[(2-N-methylamino)ethyl]-2-methoxy-6H-isoindolo[2,1-alindole;
- 11-(2-N.N-Dimethylaminoethyl)-4-trifluoromethyl-6H-isoindolo[2,1-alindole;
- 2,4-Difluoro-11-(2-N,N-dimethylaminoethyl)-6H-isoindolo[2,1-a]indole;
- 11-(2-Pyrrolidin-1-ylethyl)-6H-isoindolo[2,1-a]indole;
- 2-Bromo-11-(2-pyrrolidin-1-ylethyl)-6H-isoindolo[2,1-a]indole;
- 11-(2-(Piperidin-1-yl)ethyl)-6H-isoindolo[2,1-a]indole;
- 11-(2-(4-Methylpiperazin-1-yl)ethyl)-6H-isoindolo[2,1-a]indole;
- 11-(3-(Pyrrolidin-1-yl)-1-hydroxyprop-1-yl)-6H-isoindolo[2,1-alindole;
- 2-Bromo-11-(3-(piperidin-1-yl)-1-hydroxyprop-1-yl)-6H-isoindolo[2,1-a]indole;
- 11-(2-N,N-Dimethylaminoethyl)-4-ethyl-6H-isoindolo[2,1-a]indole;
- 11-(2-N,N-Dimethylamino-1-hydroxyethyl)-6H-isoindolo[2,1-a]indole;
- 11-(2-N,N-Dimethylaminoethyl)-4-methoxy-6H-isoindolo[2,1-a]indole;
- $\hbox{2-Bromo-11-(2-N,N-dimethylaminoethyl)-6H-isoindolo[2,1-a] indole;}\\$
- $\hbox{$4$-Bromo-$11-(2-N,N-dimethylaminoethyl)-6H-isoindolo[2,1-a] indole;}\\$
- 4-Fluoro-11-(2-N,N-dimethylaminoethyl)-6H-isoindolo[2,1-a]indole;
- 2-Bromo-11-(2-(4methylpiperazin-1-yl)ethyl)-6H-isoindolo[2,1-a]indole; and
- er a stereoisomers, N-oxides, polymorph, and pharmaceutically acceptable salts or solvate thereof.
- 3. (Previously presented) A pharmaceutical composition comprising a pharmaceutically acceptable carrier, diluent, excipient or solvent and a therapeutically effective amount of a compound according to claim 1.
- 4. (Previously presented) The pharmaceutical composition according to claim 3, which is in the form of a tablet, a capsule, a powder, a lozenge, a suppository, a syrup, a solution, a suspension or

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an injection, wherein said form is administered in a single dose or in multiple dose units.

5. (Cancelled)

6. (Previously presented) A method of modulating 5-HT and melatonin activity in a patient, comprising administering to said patient a therapeutically effective amount of a compound according to claim 1.

7. (Previously presented) A method of selectively modulating the 5-HT receptors of a patient, comprising administering to said patient a therapeutically effective amount of a compound according to claim 1.

8-11. (Cancelled)

12. (Previously presented) A method of modulating 5-HT receptor function in a patient, comprising administering to said patient a therapeutically effective amount of a compound according to claim 1, wherein the compound is isotopically labeled.

13. (Previously presented) The pharmaceutical composition according to claim 3, further comprising a therapeutically effective amount of a 5-HT re-uptake inhibitor, melatonin, a melatoninergic modulator or a pharmaceutically acceptable salt thereof.

14. (Cancelled)

15. (Currently amended)) A method for the treatment or prophylaxis of anxiety, depression, convulsive disorders, obsessive-compulsive disorders, migraine headache, cognitive memory disorders, Attention Deficient Disorder/Hyperactivity Syndrome, personality disorders, psychosis, paraphrenia, psychotic depression, mania, schizophrenia, schizophreniform disorders, withdrawal from drug abuse, panic attacks, reproduction, glaucoma, sleep disorders or disorders associated with

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spinal trauma or head injury in a patient, which comprises administering to said patient in need thereof a therapeutically effective amount of a compound according to claim 1.

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- 16. (Currently amended) A method for the treatment or prophylaxis of mild cognitive impairment, Alzheimer's disease, Parkinsonism or Huntington's chorea in a patient, which comprises administering to said patient in need thereof a therapeutically effective amount of a compound according to claim 1.
- 17. (Previously presented) A method for the treatment of irritable bowel syndrome or chemotherapy induced emesis in a patient, comprising administering to said patient a therapeutically effective amount of a compound according to claim 1.
- 18. (Previously presented) A method of reducing in a patient morbidity and mortality associated with excess weight, comprising administering to the patient a therapeutically effective amount of a compound according to claim 1.
- 19. (Cancelled)